Claims Rejections – 35 USC 112;

On page 10 of the Examiner's Office Action dated 5/18/2007 indicates that "Claim 1 refers to a system comprising a device and necessary materials required for the detection of acrylamide. It is unclear what constitutes necessary materials, and the metes and bounds of the claim cannot be readily determined. Claims 2-21 are rejected as being dependent on Claim 1."

Claims 1-21 have been cancelled and replaced with newly presented claims 60-72. Correspondingly, Claims 61-72, remain dependent on Claim 60 and the intent and language has been clarified to specifically the necessary materials and mete and bounds of the claim.

In addition, Claims 1-42 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-42 have been duly canceled and the term "easily detected" has been eliminated and replaced with the term "detected" in the new corresponding claims 60-72 presented.

Claims 20 and 40 contained trademark/trade name Lumi-Cell. Claims 20 and 40 have been cancelled, thereby removing the objection of the examiner. Newly presented claims 60-72 do not contain any trademarks or tradenames.

Claims 1, 3, 8, 11, 22, 24, 28, and 31 were rejected under 35 USC 103(a) as being unacceptable over Nawaz in view of Skouloubris. Claims 1, 3, 8, 11, 22, 24, 28, and 31 have been cancelled. Newly presented claims 60-72 do not include the use of AmiE aliphatic amidase.

Claims 1, 3, 6, 8, 11, 22, 24-26, 28, 32-34, and 42 were rejected under 35 USC 103(a) as being unacceptable over Nawaz in view of Khalil. Claims 1, 3, 6, 8, 11, 22, 24-26, 28, 32-34, and 42 have been cancelled. Newly presented claims 60-72 do not include the use of ammonia detection or an ammonia sensitive apparatus.

Please cancel previously elected claims 1-42. Claims 43-59 were canceled previously in response to an elected restriction. Please add the following new claims.

Claims listing

Claims 1-59 (Canceled)

Claims 60-72 (New)

AMENDMENTS TO THE CLAIMS

CLAIMS:

60. (New) A system comprising a device for detection and measurement in any food or food substance for concentrations of acrylamides, wherein a sample of food or food substance is collected and mixed into a food or food substance dissolving solution, thereby freeing any bound acrylamide within said food or food substance and subsequently placing said solution onto a substrate of said device;

said substrate comprising an enzyme that along with a co-enzyme and heat or light or both heat and light together with a metal or catalyst facilitates conversion of acrylamide to acrylonitrile, and wherein a detection system is employed that measures acrylonitrile concentrations.

61. (New) The system as in Claim 1, wherein said detection system measures acrylonitrile concentrations corresponding to acrylamide concentrations comprising;
an infrared (IR) sensor to measure concentrations of acrylamides from said food or food substance dissolving solution subsequently converted to acrylonitrile concentrations by identifying an IR absorption peak of a carbon-nitrogen triple bond at a wavelength of 2250 cm^{-1} within said solution.

62. (New) The system as in Claim 2, wherein said system also comprises a display indicating a value of said acrylonitrile concentrations corresponding to acrylamide concentrations with a scale that is representative of the correspondence of said concentrations of acrylamides in said solution.

63. (New) The system as in Claim 1, wherein testing for acrylamide concentrations using said device is completed by a user, such that said device is also suited for home, office, or laboratory use.

64. (New) The system as in Claim 1, wherein said enzyme is nitrilase.

65. (New) The system as in Claim 1, wherein said enzyme is nitrilase from Nocardia

rhodochrous LL100-21.

66. (New) The system as in Claim 1, wherein said enzyme is formadise.

67. (New) The system as in Claim 1, wherein said system and said substrate is maintained in a biochip.

68. (New) The system as in Claim 1, wherein said co-enzyme is used such that its reaction product is coupled to a colorimetric change wherein said colorimetric change utilizes chromophores.

69. (New) The system as in Claim 9, wherein said chromophores consist of bromophenol blue, bromocresol green, and chlorophenol red.

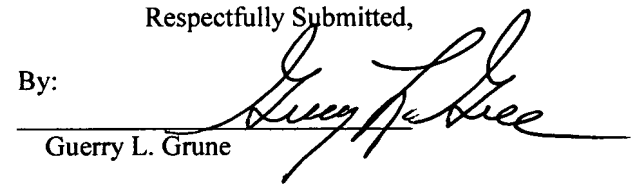
70. (New) A system comprising a device for detection and measurement in any food or food substance for concentrations of acrylamides, wherein a sample of food or food substance is collected and mixed into a food or food substance dissolving solution, thereby freeing any bound acrylamide within said food or food substance and subsequently reacting said solution with an amino acid of a protein such that production of monoclonal antibodies will occur and;

coupling said antibodies with a colored dye substance such that said colored dye substance will indicate concentration of antibodies that bind to said protein, and wherein said detection system is optionally combined with a biochip for home, office, or laboratory use.

71. (New) A system comprising a device for detection in any food or food substance to detect and measure concentrations of acrylamides wherein a sample of food or food substance is collected and mixed into a food or food substance dissolving solution, thereby freeing any bound acrylamide within said food or food substance and subsequently reacting said solution with added DNA sequences or proteins in a cell through which light passes; and subsequently measuring light intensity of light passing through said cell as a function of acrylamide concentration, wherein said light intensity decreases as the concentration of acrylamide increases.

Dated this 18th day of November 18, 2007

Respectfully Submitted,

By: 

Guerry L. Grune

Reg. No. 46,745

ePatentmanager.com

784 Villier Ct.

Virginia Beach, VA 23452

5

10

15